

Claims

What is claimed is:

1. A method for treating conditions leading to bone loss, which comprises administering a therapeutically effective amount of a purified and isolated OPG protein in conjunction with substances selected from the group consisting of TNF- α inhibitors; serine protease inhibitors; IL-1 inhibitors; IL-6 inhibitors; IL-8 inhibitors; IL-18 inhibitors; ICE modulators; FGF-1 to FGF-10; FGF modulators; PAF antagonists; MMP modulators; NOS modulators; modulators of glucocorticoid receptor; modulators of glutamate receptor; modulators of LPS levels; and noradrenaline and modulators and mimetics thereof.
2. The method of Claim 1, wherein the OPG protein is OPG-Fc.
3. The method of claim 1, wherein an IL-1 inhibitor and the OPG protein are administered.
4. The method of claim 3, wherein the IL-1 inhibitor comprises an IL-1ra polypeptide.
5. The method of Claim 4, wherein the OPG protein comprises an Fc region.
6. The method of claim 4, wherein a TNF- α inhibitor and the OPG protein are administered.
7. The method of claim 6, wherein the TNF- α inhibitor comprises sTNFR-I, sTNFR-II, or a fragment of sTNF-RI or sTNF-RII linked to an Fc region.
8. The method of claim 6, wherein the TNF- α inhibitor comprises 30 kD PEG sTNFR-I.
9. The method of claim 6, wherein the TNF- α inhibitor comprises a 2.6 kD sTNF-RI fragment.
10. The method of claim 9, wherein the sTNF-RI fragment comprises 30 kD PEG.

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11. The method of claim 6, wherein the TNF- α inhibitor comprises sTNF-RII linked to an Fc region.
12. The method of claim 6, wherein the TNF- α inhibitor is etanercept.
13. The method of Claim 10, wherein the OPG protein is OPG-Fc.
14. The method of claim 1, wherein a serine protease inhibitor and the OPG protein are administered.
15. The method of claim 14, wherein the serine protease inhibitor comprises a SLPI polypeptide.
16. The method of Claim 14, wherein the OPG protein is OPG-Fc.
17. The method of claim 1, wherein an IL-1 inhibitor, a TNF- α inhibitor, and the OPG protein are administered.
18. The method of claim 17, wherein the IL-1 inhibitor comprises an IL-1ra polypeptide.
19. The method of claim 17, wherein the TNF- α inhibitor comprises sTNFR-I, sTNFR-II, sTNFR fragments or sTNFR-Fc.
20. The method of claim 17, wherein the TNF- α inhibitor comprises 30 kD PEG-sTNFR-I.
21. The method of claim 17, wherein the sTNF-RI fragment is a 2.6 kD fragment.
22. The method of claim 21, wherein the sTNF-RI fragment comprises 30 kD PEG.
23. The method of claim 17, wherein the TNF- α inhibitor comprises sTNFR-II linked to an Fc region.
24. The method of claim 17, wherein the TNF- α inhibitor is etanercept.
25. The method of Claim 17, wherein the OPG protein is OPG-Fc.

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26. The method of Claim 1, wherein an IL-1 inhibitor, a serine protease inhibitor, and the OPG protein are administered.
27. The method of claim 26, wherein the IL-1 inhibitor comprises an IL-1ra polypeptide.
28. The method of claim 26, wherein the serine protease inhibitor comprises a SLPI polypeptide.
29. The method of Claim 26, wherein the OPG protein is OPG-Fc.
30. The method of claim 1, wherein a serine protease inhibitor, a TNF- α inhibitor, and the OPG protein are administered.
31. The method of claim 30, wherein the serine protease inhibitor comprises a SLPI polypeptide.
32. The method of claim 17, wherein the TNF- α inhibitor comprises sTNFR-I, sTNFR-II, sTNFR fragments or sTNFR-Fc.
33. The method of claim 30, wherein the TNF- α inhibitor comprises 30 kD PEG sTNFR-I.
34. The method of claim 30, wherein the TNF- α inhibitor comprises sTNFR-II linked to an Fc region.
35. The method of claim 30, wherein the TNF- α inhibitor is etanercept.
36. The method of claim 30, wherein the TNF- α inhibitor comprises a 2.6 kD sTNF-RI fragment.
37. The method of claim 36, wherein the sTNF-RI fragment comprises 30 kD PEG.
38. The method of Claim 30, wherein the OPG protein is OPG-Fc.
39. The method of any of claims 17 to 38, wherein the condition treated is rheumatoid arthritis.
40. The method of any of claims 17 to 38, wherein the condition treated is multiple sclerosis.

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41. The method of any of claims 17 to 38, wherein the condition treated ~~is~~ osteoporosis.
42. The method of any of claims 17 to 38, wherein the condition treated is osteomyelitis.
43. A method of treating an IL-1 mediated disease, which comprises administering therapeutically effective amounts of an IL-1 inhibitor and a serine protease inhibitor.
44. The method of claim 43, wherein the IL-1 inhibitor comprises an IL-1ra polypeptide.
45. The method of claim 43, wherein the serine protease inhibitor comprises a SLPI polypeptide.
46. The method of claim 43, wherein the IL-1 mediated disease is asthma.
47. The method of claim ~~43~~, wherein the IL-1 mediated disease is rheumatoid arthritis.
48. The method of claim 46, wherein the therapeutically effective amounts are delivered by pulmonary administration.
49. A method of treating TNF-mediated disease, which comprises administering therapeutically effective amounts of a TNF- α inhibitor and a serine protease inhibitor.
50. The method of claim 49, wherein the TNF- α inhibitor comprises sTNFR-I, sTNFR-II, sTNFR fragments or sTNFR-Fc.
51. The method of claim 49, wherein the TNF- α inhibitor comprises 30 kD PEG sTNFR-I.
52. The method of claim 49, wherein the TNF- α inhibitor comprises a 2.6 kD sTNF-RI fragment.
53. The method of claim 52, wherein the sTNF-RI fragment comprises 30 kD PEG.

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54. The method of claim 49, wherein the TNF- α inhibitor comprises sTNFR-II linked to an Fc region.
55. The method of claim 49, wherein the TNF- α inhibitor is etanercept.
56. The method of claim 49, wherein the serine protease inhibitor comprises a SLPI polypeptide.
57. The method of claim 49, wherein the TNF-mediated disease is rheumatoid arthritis.
58. A method of treating inflammation, which comprises administering an IL-18 inhibitor, a TNF- α inhibitor, and an IL-1 inhibitor.
59. A method of treating rheumatoid arthritis, which comprises administering an IL-18 inhibitor, a TNF- α inhibitor, and an IL-1 inhibitor.
60. A method of treating SLE, which comprises administering an IL-18 inhibitor, a TNF- α inhibitor, and an IL-1 inhibitor.
61. A method of treating GvHD, which comprises administering an IL-18 inhibitor, a TNF- α inhibitor, and an IL-1 inhibitor.

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